



4500 15th St. E., Unit A • Tacoma, WA 98424 • Phone 253.926.0580, Fax 253.926.0599

June 30, 2006

Mr. Jim Brown
Alaska Copper Works
P.O. Box 3546
Seattle, Washington 98124-3546
3223 Sixth Avenue South 98134-2105

RE: TRI Form R Report Year End 2005
Due by July 3, 2006

Dear Mr. Brown

Please find that attached TRI Form R State Only Report

This report reflects activities involving EPCRA reportable toxic chemical purchased, used, released or disposed of in excess of 10,000 pounds.

Your signature on page one is necessary for proper submission. You need only sign in Section 3 and return by fax to 503-786-7877 sometime today or by next Monday July 3, 2006. Submittal of the Form R report to the reporting agency will be conducted by hand carrier.

Chromium compounds is the only toxic chemical actually purchased, used, released, and/or disposed of during the 2005 calendar year. Nitric acid in its original form (pure) and used in degreasing or brightening was not actually was not actually purchased in excess of 10,000 pounds and was treated with an efficiency of above pH of 6 thereby not reportable.

Keep in mind that based on review of previous reporting years, Alaskan Copper has reported nickel compounds. ROMIC finds no evidence of reportable nickel compounds purchased, used, released, or generated as a waste. It is our opinion that previous Form R reports may have been submitted in error.

Since there is a significant difference between the 2004 and 2005 reports, ROMIC anticipates some type of inquiry from the reporting agency. ROMIC is listed as the technical contact for your company and will address any questions relating to the current reporting year. ROMIC will assist in any corrective actions should previous reporting years require revision.

Your next reporting requirement is the 2006 hazardous waste annual report due by March 1, 2007.

Please feel free to contact me should you have any additional questions regarding this report.

Sincerely,

Matthew Dunn
(b) (6)

(IMPORTANT: Type or print; read instructions before completing form)



United States
Environmental Protection
Agency

FORM R

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category or Generic Name

Chromium Compounds (except for chromite ore mined in the Transvaal Reg

WHERE TO SEND COMPLETED FORMS: 1. TRI Data Processing Center 2. APPROPRIATE STATE OFFICE
P.O. Box 1513 (See instructions in Appendix F)
Lanham, MD 20703-1513

Enter "X" here if this
is a revision

For EPA use only

Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**PART I. FACILITY IDENTIFICATION INFORMATION****SECTION 1. REPORTING YEAR 2005****SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
☐ Yes (Answer question 2.2; Attach substantiation forms) ☒ NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy ☐ Sanitized ☐ Unsanitized
(Answer only if "YES" in 2.1)

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:

Jim Brown Operations Manager

Signature:

Date Signed:

06/30/2006

SECTION 4. FACILITY IDENTIFICATION

4.1 Facility or Establishment Name		TRI Facility ID Number		98134LSKNC32006	
Alaskan Copper Works		Facility or Establishment Name or Mailing Address (if different from street address)			
Street		Mailing Address			
3200 6th Ave South		NA			
City/County/State/Zip Code		City/State/Zip Code		Country (Non-US)	
Seattle King W 98134					
4.2 This report contains information for: (Important: check a or b; check c or d if applicable) a. <input checked="" type="checkbox"/> An entire facility b. <input type="checkbox"/> Part of a facility c. <input type="checkbox"/> A Federal facility d. <input type="checkbox"/> GOCO					
4.3 Technical Contact Name		Matthew Dunn ROMIC		Telephone Number (include area code)	
Email Address		matthewd@romic.com		(b) (6)	
4.4 Public Contact Name		Jim Brown		Telephone Number (include area code)	
				(206) 623-5800	
4.5 SIC Code (s) (4 digits)		Primary			
		a. 3498	b. 3471	c. 3443	d. e. f.
4.7 Dun & Bradstreet Number(s) (9 digits)		a. (b) (6)			
		b.			

SECTION 5. PARENT COMPANY INFORMATION

5.1 Name of Parent Company	NA <input checked="" type="checkbox"/>
5.2 Parent Company's Dun & Bradstreet Number	NA <input checked="" type="checkbox"/>

EPA FORM 7
PART II. CHEMICAL - SPECIFIC INFORMATION

TRI Facility ID Number
 98134LSKNC32006
 Toxic Chemical, Category or Generic Name
 Chromium Compounds (except for chromite ore mi

SECTION 1. TOXIC CHEMICAL IDENTITY

(Important: DO NOT complete this section if you completed Section 2 below.)

1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) N090
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) Chromium Compounds (except for chromite ore mined in the Transvaal Reg
1.3	Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) NA

Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.

(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

1.4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NA																	

SECTION 2. MIXTURE COMPONENT IDENTITY

(Important: DO NOT complete this section if you completed Section 1 above.)

2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) NA
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SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

3.1	Manufacture the toxic chemical:	3.2	Process the toxic chemical:	3.3	Otherwise use the toxic chemical:
a. <input type="checkbox"/> Produce b. <input type="checkbox"/> Import If produce or import: c. <input type="checkbox"/> For on-site use/processing d. <input type="checkbox"/> For sale/distribution e. <input type="checkbox"/> As a byproduct f. <input type="checkbox"/> As an impurity		a. <input type="checkbox"/> As a reactant b. <input type="checkbox"/> As a formulation component c. <input type="checkbox"/> As an article component d. <input type="checkbox"/> Repackaging e. <input type="checkbox"/> As an impurity		a. <input type="checkbox"/> As a chemical processing aid b. <input type="checkbox"/> As a manufacturing aid c. <input checked="" type="checkbox"/> Ancillary or other use	

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1	04 (Enter two-digit code from instruction package.)
------------	---

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

		A. Total Release (pounds/year*) (Enter range code or estimate**)	B. Basis of Estimate (enter code)	C. % From Stormwater
5.1	Fugitive or non-point air emissions	NA <input checked="" type="checkbox"/>		
5.2	Stack or point air emissions	NA <input checked="" type="checkbox"/>		
5.3	Discharges to receiving streams or water bodies (enter one name per box)			
Stream or Water Body Name				
5.3.1	NA			
5.3.2				
5.3.3				

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box
 and indicate the Part II, Section 5.3 page number in this box. (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

EPA FORM 9

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Chromium Compounds (except for chromite ore mi

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

	N	A. Total Release (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)
5.4.1 Underground Injection onsite	<input checked="" type="checkbox"/>		
5.4.2 Underground Injection onsite	<input checked="" type="checkbox"/>		
5.5 Disposal to land onsite			
5.5.1.A RCRA Subtitle C landfills	<input checked="" type="checkbox"/>		
5.5.1.B Other landfills	<input checked="" type="checkbox"/>		
5.5.2 Land treatment/application farming	<input checked="" type="checkbox"/>		
5.5.3.A RCRA Subtitle C Surface Impoundments	<input checked="" type="checkbox"/>		
5.5.3.B Other surface impoundments	<input checked="" type="checkbox"/>		
5.5.4 Other disposal	<input checked="" type="checkbox"/>		

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1. Total Transfers (pounds/year*)
(enter range code** or estimate)

NA

6.1.A.2 Basis of Estimate
(enter code)

6.1.B 1

POTW Name

NA

POTW Address

City

State

County

Zip

6.1.B

POTW Name

POTW Address

City

State

County

Zip

If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box and indicate the Part II, Section 6.1 page number in this box (example: 1,2,3, etc.)

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. 1 Off-Site EPA Identification Number (RCRA ID No.)

AZD980735500

Off-Site Location Name

World Resources Co

Off-site Address

8113 W Sherman St

City

Tolleson

State

AZ

County

Maricopa

Zip

85353

Country
(Non-US)

is location under control of reporting facility or parent company?

Yes

☒

No

* For Dioxin or Dioxin-like compounds, report in grams/year

EPA Form 9350-1 (Rev. 1/2006) - Previous editions are obsolete.

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

AKC-0026252

EPA FORM R

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Chromium Compounds (except for chromite ore m

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

A. Total Transfers (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1. 13174.92	1. O	1. M24
2. NA	2.	2.
3.	3.	3.
4.	4.	4.

6.2. Off-Site EPA Identification Number (RCRA ID No.)

Off-Site location Name

Off-site Address

City State County Zip Country (Non-

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

A. Total Transfers (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

☒ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

a. General Waste Stream (enter code)	b. Waste Treatment Method(s) Sequence [enter 3-character code(s)]	d. Waste Treatment Efficiency Estimate [enter 2 character code]
7A.1a	7A.1b 1 2	7A.1d
	3 4 5	
	6 7 8	
7A.2a	7A.2b 1 2	7A.2d
	3 4 5	
	6 7 8	
7A.3a	7A.3b 1 2	7A.3d
	3 4 5	
	6 7 8	
7A.4a	7A.4b 1 2	7A.4d
	3 4 5	
	6 7 8	
7A.5a	7A.5b 1 2	7A.5d
	3 4 5	
	6 7 8	

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box and indicate the Part II, Section 6.2/7A page number in this box: (example: 1,2,3, etc.)

EPA FORM R

PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Chromium Compounds (except for chromite ore mi

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☒

Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1

2

3

SECTION 7C. ON-SITE RECYCLING PROCESSES

☒

Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1

2

3

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

		Column A Prior Year (pounds/year*)	Column B Current Reporting Year (pounds/year*)	Column C Following Year (pounds/year*)	Column D Second Following Year (pounds/year*)
8.1					
8.1a	Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills	NA	NA	NA	NA
8.1b	Total other on-site disposal or other releases	NA	NA	NA	NA
8.1c	Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills	NA	NA	NA	NA
8.1d	Total other off-site disposal or other releases	NA	NA	NA	NA
8.2	Quantity used for energy recovery onsite	NA	NA	NA	NA
8.3	Quantity used for energy recovery offsite	NA	NA	NA	NA
8.4	Quantity recycled onsite	NA	NA	NA	NA
8.5	Quantity recycled offsite	8299	13174.92	14400	15300
8.6	Quantity treated onsite	NA	NA	NA	NA
8.7	Quantity treated offsite	NA	NA	NA	NA
8.8	Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)				NA
8.9	Production ratio or activity index				1.09
8.10	Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.				
	Source Reduction Activities [enter code(s)]	Methods to Identify Activity (enter codes)			
8.10.1	NA	a.	b.	c.	
8.10.2		a.	b.	c.	
8.10.3		a.	b.	c.	
8.10.4		a.	b.	c.	
8.11	If you wish to submit additional optional information on source reduction, recycling, or pollution control activities with this report, check "Yes."				Yes <input type="checkbox"/>

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Chromium Compounds (except for chromite ore)

State Only

SECTION 8.11. Submit additional optional information on source reduction, recycling, or pollution control activities.

4500 15th St. E., Unit A • Tacoma, WA 98424 • Phone 253.926.0580, Fax 253.926.0599

June 30, 2006

Mr. Jim Brown
Alaska Copper Works
P.O. Box 3546
Seattle, Washington 98124-3546
3223 Sixth Avenue South 98134-2105

RE: TRI Form R Report Year End 2005
Due by July 3, 2006

Dear Mr. Brown

Please find that attached TRI Form R State Only I

503-786-7877

Post-It [®] brand fax transmittal memo 7871		# of pages 1	
To	Matthew Dunn	From	Jim Brown
Co.	ROMIC	Co.	Alaskan Copper
Dept.		Phone #	
Fax #	503-786-7877	Fax #	206-382-4309

This report reflects activities involving EPCRA reportable toxic chemical purchased, used, released or disposed of in excess of 10,000 pounds.

Your signature on page one is necessary for proper submission. You need only sign in Section 3 and return by fax to 503-786-7877 sometime today or by next Monday July 3, 2006. Submittal of the Form R report to the reporting agency will be conducted by hand carrier.

Chromium compounds is the only toxic chemical actually purchased, used, released, and/or disposed of during the 2005 calendar year. Nitric acid in its original form (pure) and used in degreasing or brightening was not actually purchased in excess of 10,000 pounds and was treated with an efficiency of above pH of 6 thereby not reportable.

Keep in mind that based on review of previous reporting years, Alaskan Copper has reported nickel compounds. ROMIC finds no evidence of reportable nickel compounds purchased, used, released, or generated as a waste. It is our opinion that previous Form R reports may have been submitted in error.

Since there is a significant difference between the 2004 and 2005 reports, ROMIC anticipates some type of inquiry from the reporting agency. ROMIC is listed as the technical contact for your company and will address any questions relating to the current reporting year. ROMIC will assist in any corrective actions should previous reporting years require revision.

Your next reporting requirement is the 2006 hazardous waste annual report due by March 1, 2007.

Please feel free to contact me should you have any additional questions regarding this report.

Sincerely,


Matthew Dunn
(b) (5), (b) (6)

Form Approved OMB Number: 2070-0093

Approval Expires: 1/31/2008

Page 1 of 5

(IMPORTANT: Type or print; read instructions before completing form)

 EPA United States Environmental Protection Agency	FORM R Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act	TRI Facility ID Number 88134LSKNC32008
		Toxic Chemical, Category or Generic Name Chromium Compounds (except for chromite ore mined in the Transvaal Reg)
WHERE TO SEND COMPLETED FORMS: 1. TRI Data Processing Center 2. APPROPRIATE STATE OFFICE P.O. Box 1513 (See instructions in Appendix F) Lenham, MD 20753-1513		Enter "X" here if this is a revision For EPA use only

Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.**PART I. FACILITY IDENTIFICATION INFORMATION****SECTION 1. REPORTING YEAR 2005****SECTION 2. TRADE SECRET INFORMATION**

2.1	Are you claiming the toxic chemical identified on page 2 trade secret? <input type="checkbox"/> Yes (Answer question 2.2; Attach substantiation forms) <input checked="" type="checkbox"/> NO (Do not answer 2.2; Go to Section 3)	2.2	Is this copy <input type="checkbox"/> Sanitized <input type="checkbox"/> Unsanitized (Answer only if "YES" in 2.1)
-----	---	-----	---

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official: Jim Brown Operations Manager	Signature: <i>James Brown</i>	Date Signed: 06/30/2006
--	----------------------------------	----------------------------

SECTION 4. FACILITY IDENTIFICATION

4.1	TRI Facility ID Number 88134LSKNC32008
Facility or Establishment Name Alaskan Copper Works	Facility or Establishment Name or Mailing Address (if different from street address)
Street 3200 6th Ave South	Mailing Address NA
City/County/State/Zip Code Seattle King W 98134	City/State/Zip Code Country (Non-US)

4.2	This report contains information for: (Important: check a or b; check c or d if applicable) a. <input checked="" type="checkbox"/> An entire facility b. <input type="checkbox"/> Part of a facility c. <input type="checkbox"/> A Federal facility d. <input type="checkbox"/> GOCO
-----	---

4.3	Technical Contact Name Matthew Dunn ROMIC	Telephone Number (include area code) (b) (6)
-----	--	---

	Email Address matthewd@romic.com
--	-------------------------------------

4.4	Public Contact Name Jim Brown	Telephone Number (include area code) (206) 523-5800
-----	----------------------------------	--

4.5	SIC Code (s) (4 digits)	Primary	a. 3498	b. 3471	c. 3443	d.	e.	f.
-----	-------------------------	---------	---------	---------	---------	----	----	----

4.7	Dun & Bradstreet Number(s) (9 digits)	a. (b) (6)	b.
-----	---------------------------------------	------------	----

SECTION 5. PARENT COMPANY INFORMATION

5.1	Name of Parent Company NA <input checked="" type="checkbox"/>
5.2	Parent Company's Dun & Bradstreet Number NA <input checked="" type="checkbox"/>



United States
Environmental Protection
Agency

FORM F

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category or Generic Name

Chromium Compounds (except for chromite ore mined in the Transvaal Reg

WHERE TO SEND COMPLETED FORMS: 1. TRI Data Processing Center 2. APPROPRIATE STATE OFFICE
P.O.Box 1513 (See instructions in Appendix F)
Lanham, MD 20703-1513

Enter "X" here if this
is a revision

For EPA use only

Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.

PART I. FACILITY IDENTIFICATION INFORMATION**SECTION 1. REPORTING YEAR 2005****SECTION 2. TRADE SECRET INFORMATION**

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
☐ Yes (Answer question 2.2; Attach substantiation forms) ☒ NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy ☐ Sanitized ☐ Unsanitized
(Answer only if "YES" in 2.1)

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:

Jim Brown Operations Manager

Signature:

Date Signed

06/30/2006

SECTION 4. FACILITY IDENTIFICATION

4.1 Facility or Establishment Name: Alaskan Copper Works
Street: 3200 6th Ave South
City/County/State/Zip Code: Seattle King W 98134

TRI Facility ID Number: 98134LSKNC32006
Facility or Establishment Name or Mailing Address (if different from street address):
Mailing Address: NA
City/State/Zip Code: Country (Non-US):

4.2 This report contains information for:
(Important: check a or b; check c or d if applicable) a. ☒ An entire facility b. ☐ Part of a facility c. ☐ A Federal facility d. ☐ GOCO

4.3 Technical Contact Name: Matthew Dunn ROMIC
Email Address: matthewd@romic.com
Telephone Number (include area code): (b) (6)

4.4 Public Contact Name: Jim Brown
Telephone Number (include area code): (206) 623-5800

4.5 SIC Code (s) (4 digits):
a. 3498 Primary b. 3471 c. 3443 d. e. f.

4.7 Dun & Bradstreet Number(s) (9 digits):
a. (b) (6) b.

SECTION 5. PARENT COMPANY INFORMATION

5.1 Name of Parent Company: NA ☒

5.2 Parent Company's Dun & Bradstreet Number: NA ☒

EPA FORM R
PART II. CHEMICAL - SPECIFIC INFORMATION

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category or Generic Name

Chromium Compounds (except for chromite ore mi

SECTION 1. TOXIC CHEMICAL IDENTITY

(Important: DO NOT complete this section if you completed Section 2 below.)

1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.) N090
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.) Chromium Compounds (except for chromite ore mined in the Transvaal Reg
1.3	Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.) NA

Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.

(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

1.4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NA																	

SECTION 2. MIXTURE COMPONENT IDENTITY

(Important: DO NOT complete this section if you completed Section 1 above.)

2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.) NA
------------	--

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

3.1	Manufacture the toxic chemical:	3.2	Process the toxic chemical:	3.3	Otherwise use the toxic chemical:
a. <input type="checkbox"/> Produce b. <input type="checkbox"/> Import If produce or import: c. <input type="checkbox"/> For on-site use/processing d. <input type="checkbox"/> For sale/distribution e. <input type="checkbox"/> As a byproduct f. <input type="checkbox"/> As an impurity		a. <input type="checkbox"/> As a reactant b. <input type="checkbox"/> As a formulation component c. <input type="checkbox"/> As an article component d. <input type="checkbox"/> Repackaging e. <input type="checkbox"/> As an impurity		a. <input type="checkbox"/> As a chemical processing aid b. <input type="checkbox"/> As a manufacturing aid c. <input checked="" type="checkbox"/> Ancillary or other use	

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1	04 (Enter two-digit code from instruction package.)
------------	---

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

		A. Total Release (pounds/year*) (Enter range code or estimate**)	B. Basis of Estimate (enter code)	C. % From Stormwater
5.1	Fugitive or non-point air emissions	NA <input checked="" type="checkbox"/>		
5.2	Stack or point air emissions	NA <input checked="" type="checkbox"/>		
5.3	Discharges to receiving streams or water bodies (enter one name per box)			
	Stream or Water Body Name			
5.3.1	NA			
5.3.2				
5.3.3				

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box

and indicate the Part II, Section 5.3 page number in this box. (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

EPA FORM R

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Chromium Compounds (except for chromite ore mi

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

		N	A. Total Release (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)
5.4.1	Underground Injection onsite	<input checked="" type="checkbox"/>		
5.4.2	Underground Injection onsite	<input checked="" type="checkbox"/>		
5.5	Disposal to land onsite			
5.5.1.A	RCRA Subtitle C landfills	<input checked="" type="checkbox"/>		
5.5.1.B	Other landfills	<input checked="" type="checkbox"/>		
5.5.2	Land treatment/application farming	<input checked="" type="checkbox"/>		
5.5.3.A	RCRA Subtitle C Surface Impoundments	<input checked="" type="checkbox"/>		
5.5.3.B	Other surface impoundments	<input checked="" type="checkbox"/>		
5.5.4	Other disposal	<input checked="" type="checkbox"/>		

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate)		6.1.A.2 Basis of Estimate (enter code)	
NA			
6.1.B 1	POTW Name	NA	
POTW Address			
City		State	
County		Zip	
6.1.B	POTW Name		
POTW Address			
City		State	
County		Zip	

If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages

in this box and indicate the Part II, Section 6.1 page number in this box (example: 1,2,3, etc.)

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2. 1 Off-Site EPA Identification Number (RCRA ID No.)		AZD980735500	
Off-Site Location Name		World Resources Co	
Off-site Address		8113 W Sherman St	
City	Tolleson	State	AZ
County	Maricopa	Zip	85353
Country (Non-US)			
location under control of reporting facility or parent company? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

EPA FORM R

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number
98134LSKNC32006
Toxic Chemical, Category, or Generic Name
Chromium Compounds (except for chromite ore m

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

A. Total Transfers (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1. 13174.92	1. O	1. M24
2. NA	2.	2.
3.	3.	3.
4.	4.	4.

6.2. Off-Site EPA Identification Number (RCRA ID No.)

Off-Site location Name

Off-site Address

City		State		County		Zip		Country (Non-	
------	--	-------	--	--------	--	-----	--	------------------	--

Is location under control of reporting facility or parent company?

☐ Yes ☐ No

A. Total Transfers (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

☒ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

a. General Waste Stream (enter code)	b. Waste Treatment Method(s) Sequence [enter 3-character code(s)]	d. Waste Treatment Efficiency Estimate [enter 2 character code]
7A.1a	7A.1b	7A.1d
	1 2 3 4 5 6 7 8	
7A.2a	7A.2b	7A.2d
	1 2 3 4 5 6 7 8	
7A.3a	7A.3b	7A.3d
	1 2 3 4 5 6 7 8	
7A.4a	7A.4b	7A.4d
	1 2 3 4 5 6 7 8	
7A.5a	7A.5b	7A.5d
	1 2 3 4 5 6 7 8	

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box

and indicate the Part II, Section 6.2/7A page number in this box: (example: 1,2,3, etc.)

EPA FORM R

PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Chromium Compounds (except for chromite ore mi

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☒

Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1

2

3

SECTION 7C. ON-SITE RECYCLING PROCESSES

☒

Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1

2

3

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

		Column A Prior Year (pounds/year*)	Column B Current Reporting Year (pounds/year*)	Column C Following Year (pounds/year*)	Column D Second Following Year (pounds/year*)
8.1					
8.1a	Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills	NA	NA	NA	NA
8.1b	Total other on-site disposal or other releases	NA	NA	NA	NA
8.1c	Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills	NA	NA	NA	NA
8.1d	Total other off-site disposal or other releases	NA	NA	NA	NA
8.2	Quantity used for energy recovery onsite	NA	NA	NA	NA
8.3	Quantity used for energy recovery offsite	NA	NA	NA	NA
8.4	Quantity recycled onsite	NA	NA	NA	NA
8.5	Quantity recycled offsite	8299	13174.92	14400	15300
8.6	Quantity treated onsite	NA	NA	NA	NA
8.7	Quantity treated offsite	NA	NA	NA	NA
8.8	Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)	NA			
8.9	Production ratio or activity index	1.09			
8.10	Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.				
	Source Reduction Activities [enter code(s)]	Methods to Identify Activity (enter codes)			
8.10.1	NA	a.	b.	c.	
8.10.2		a.	b.	c.	
8.10.3		a.	b.	c.	
8.10.4		a.	b.	c.	
8.11	If you wish to submit additional optional information on source reduction, recycling, or pollution control activities with this report, check "Yes."				Yes <input type="checkbox"/>

TRI Facility ID Number
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Toxic Chemical, Category, or Generic Name
Chromium Compounds (except for chromite ore)

SECTION 8.11. Submit additional optional information on source reduction, recycling, or pollution control activities.

--

(IMPORTANT: Type or print; read instructions before completing form)



United States
Environmental Protection
Agency

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

Draft

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category or Generic Name

Nickel Compounds

WHERE TO SEND COMPLETED FORMS: 1. TRI Data Processing Center
P.O. Box 1513
Lanham, MD 20703-1513

2. APPROPRIATE STATE OFFICE
(See instructions in Appendix F)

Enter "X" here if this
is a revision

For EPA use only

Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.

PART I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR 2004

SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 2 trade secret?
☐ Yes (Answer question 2.2; Attach substantiation forms) ☒ NO (Do not answer 2.2; Go to Section 3)

2.2 Is this copy ☐ Sanitized ☐ Unsanitized
(Answer only if "YES" in 2.1)

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:

James Brown Operations Manager

Signature:

Draft - Do Not Submit

Date Signed:
06/20/2005

SECTION 4. FACILITY IDENTIFICATION

4.1	Facility or Establishment Name Alaskan Copper Works		TRI Facility ID Number 98134LSKNC32006		
Street 3200 6th Ave South		Facility or Establishment Name or Mailing Address (if different from street address) Alaskan Copper Works			
City/County/State/Zip Code Seattle King W 98134		Mailing Address P.O. Box 3546		Country (Non-US)	
4.2	This report contains information for: (Important: check a or b; check c or d if applicable) a. <input checked="" type="checkbox"/> An entire facility b. <input type="checkbox"/> Part of a facility c. <input type="checkbox"/> A Federal facility d. <input type="checkbox"/> GOCO				
4.3	Technical Contact Name Dean Nguyen		Telephone Number (include area code) (800) 800-7644		
Email Address Dnguyen@ecrinc.com					
4.4	Public Contact Name James Brown		Telephone Number (include area code) (206) 623-5800		
4.5	SIC Code (s) (4 digits) Primary a. 3498 b. 3471 c. 3443 d. e. f.				
4.6	Latitude Degrees 47 Minutes 34 Seconds	Longitude Degrees 122 Minutes 19 Seconds			
4.7	Dun & Bradstreet Number(s) (9 digits) a. (b) (6) b.	4.8	EPA Identification Number (RCRA I.D. No.) (12 characters) a. WAD980738546 b.	4.9	Facility NPDES Permit Number(s) (9 characters) a. SO3000139 b.
		4.10	Underground Injection Well Code (UIC) I.D. Number(s) (12 digits) a. NA b.		

SECTION 5. PARENT COMPANY INFORMATION

5.1 Name of Parent Company NA ☐ Alaskan Copper Companies

Parent Company's Dun & Bradstreet Number NA ☐ (b) (6)

EPA FORM R
PART II. CHEMICAL - SPECIFIC INFORMATION

Draft

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category or Generic Name

Nickel Compounds

SECTION 1. TOXIC CHEMICAL IDENTITY

(Important: DO NOT complete this section if you completed Section 2 below.)

1.1 CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)
 N495

1.2 Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)
 Nickel Compounds

1.3 Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.)
 NA

Distribution of Each Member of the Dioxin and Dioxin-like Compounds Category.

(If there are any numbers in boxes 1-17, then every field must be filled in with either 0 or some number between 0.01 and 100. Distribution should be reported in percentages and the total should equal 100%. If you do not have speciation data available, indicate NA.)

1.4

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NA																

SECTION 2. MIXTURE COMPONENT IDENTIT

(Important: DO NOT complete this section if you completed Section 1 above.)

2.1 Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)
 NA

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

3.1 Manufacture the toxic chemical	3.2 Process the toxic chemical:	3.3 Otherwise use the toxic chemical:
a. <input type="checkbox"/> Produce b. <input checked="" type="checkbox"/> Import If produce or import: c. <input checked="" type="checkbox"/> For on-site use/processing d. <input type="checkbox"/> For sale/distribution e. <input type="checkbox"/> As a byproduct f. <input type="checkbox"/> As an impurity	a. <input type="checkbox"/> As a reactant b. <input type="checkbox"/> As a formulation component c. <input checked="" type="checkbox"/> As an article component d. <input type="checkbox"/> Repackaging e. <input type="checkbox"/> As an impurity	a. <input type="checkbox"/> As a chemical processing aid b. <input type="checkbox"/> As a manufacturing aid c. <input type="checkbox"/> Ancillary or other use

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEAR

4.1 (Enter two-digit code from instruction package.)

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

		A. Total Release (pounds/year*) (Enter range code or estimate**)	B. Basis of Estimate (enter code)	C. % From Stormwater
5.1	Fugitive or non-point air emissions	NA <input type="text"/>	A	O
5.2	Stack or point air emissions	NA <input checked="" type="checkbox"/>		
5.3	Discharges to receiving streams or water bodies (enter one name per box)			
Stream or Water Body Name				
5.3.1	NA			
5.3.2				
5.3.3				

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box. (example: 1,2,3, etc.)

* For Dioxin or Dioxin-like compounds, report in grams/year

** Range Codes: A= 1- 10 pounds; B= 11- 499 pounds; C= 500 - 999 pounds.

EPA FORM R

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PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Nickel Compounds

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE (Continued)

	N	A. Total Release (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)
5.4.1 Underground Injection onsite to Class I Wells	<input checked="" type="checkbox"/>		
5.4.2 Underground Injection onsite to Class II-V Wells	<input checked="" type="checkbox"/>		
5.5 Disposal to land onsite			
5.5.1.A RCRA Subtitle C landfills	<input checked="" type="checkbox"/>		
5.5.1.B Other landfills	<input checked="" type="checkbox"/>		
5.5.2 Land treatment/application farming	<input checked="" type="checkbox"/>		
5.5.3A RCRA Subtitle C Surface Impoundments	<input checked="" type="checkbox"/>		
5.5.3B Other surface impoundments	<input checked="" type="checkbox"/>		
5.5.4 Other disposal	<input checked="" type="checkbox"/>		

SECTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

6.1.A Total Quantity Transferred to POTWs and Basis of Estimate

1.A.1. Total Transfers (pounds/year*) (enter range code** or estimate)	6.1.A.2 Basis of Estimate (enter code)
A	M
6.1.B 1	POTW Name Metro
POTW Address	821 Second Ave
City Seattle	State WA County King Zip 98104
6.1.B	POTW Name
POTW Address	
City	State County Zip

If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages

in this box and indicate the Part II, Section 6.1 page number in this box (example: 1,2,3, etc.)

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

6.2.1 Off-Site EPA Identification Number (RCRA ID No.)	AZD980735500
Off-Site Location Name	World Resources Company
Off-site Address	8113 West Sherman
City Phoenix	State AZ County Maricopa Zip 85043 Country (Non-US)

location under control of reporting facility or parent company?

☐ Yes ☒ No

EPA FORM R

Draft

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Nickel Compounds

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

A. Total Transfers (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1. A	1. O	1. M24
2. NA	2.	2.
3.	3.	3.
4.	4.	4.

6.2. Off-Site EPA Identification Number (RCRA ID No.)

Off-Site location Name

Off-site Address

City

State

County

Zip

Country
(Non-US)

Is location under control of reporting facility or parent company?

☐ Yes☐ No

A. Total Transfers (pounds/year*) (enter range code** or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.

SECTION 7A. ONSITE WASTE TREATMENT METHODS AND EFFICIENCY

☒

Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

a. General Waste Stream (enter code)	b. Waste Treatment Method(s) Sequence [enter 3-character code(s)]	c. Range of Influent Concentration	d. Waste Treatment Efficiency Estimate	e. Based on Operating Data ?
7A.1a	7A.1b	7A.1c	7A.1d	7A.1e
	1 2 3 4 5 6 7 8		%	Yes No <input type="checkbox"/> <input type="checkbox"/>
7A.2a	7A.2b	7A.2c	7A.2d	7A.2e
	1 2 3 4 5 6 7 8		%	Yes No <input type="checkbox"/> <input type="checkbox"/>
7A.3a	7A.3b	7A.3c	7A.3d	7A.3e
	1 2 3 4 5 6 7 8		%	Yes No <input type="checkbox"/> <input type="checkbox"/>
7A.4a	7A.4b	7A.4c	7A.4d	7A.4e
	1 2 3 4 5 6 7 8		%	Yes No <input type="checkbox"/> <input type="checkbox"/>
7A.5a	7A.5b	7A.5c	7A.5d	7A.5e
	1 2 3 4 5 6 7 8		%	Yes No <input type="checkbox"/> <input type="checkbox"/>

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box

and indicate the Part II, Section 6.2/7A page number in this box: (example: 1,2,3, etc.)

EPA FORM R Draft

PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

98134LSKNC32006

Toxic Chemical, Category, or Generic Name

Nickel Compounds

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☒ Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1

2

3

SECTION 7C. ON-SITE RECYCLING PROCESSES

☒ Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.

Recycling Methods [enter 3-character code(s)]

1

2

3

4

5

6

7

8

9

10

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

	Column A Prior Year (pounds/year*)	Column B Current Reporting Year (pounds/year*)	Column C Following Year (pounds/year*)	Column D Second Following Year (pounds/year*)
8.1				
8.1a Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills	NA	NA	NA	NA
8.1b Total other on-site disposal or other releases	4	4	4	4
Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills	1	1	1	1
8.1d Total other off-site disposal or other releases	NA	NA	NA	NA
8.2 Quantity used for energy recovery onsite	NA	NA	NA	NA
8.3 Quantity used for energy recovery offsite	NA	NA	NA	NA
8.4 Quantity recycled onsite	NA	NA	NA	NA
8.5 Quantity recycled offsite	6000	1000	1000	1000
8.6 Quantity treated onsite	NA	NA	NA	NA
8.7 Quantity treated offsite	NA	NA	NA	NA
8.8 Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)	NA			
8.9 Production ratio or activity index	83.00			
8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.				
	Source Reduction Activities [enter code(s)]	Methods to Identify Activity (enter codes)		
8.10.1	W19	a. T04	b.	c.
8.10.2	W29	a. T03	b.	c.
8.10.3	W39	a. T01	b.	c.
8.10.4	NA	a.	b.	c.
8.11	Is additional information on source reduction, recycling, or pollution control activities included with this report? (Check one Box)			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

[Chemical Aids](#) / [CAMECO Toolkits](#) / Evaporation Calculator

Evaporation Calculator

Use this calculator to estimate the initial rate at which any of seven toxic chemicals evaporates from aqueous solution. You can use this evaporation rate estimate in ALOHA.

Notes: (1) For each chemical, the Chemical menu displays the name of the aqueous solution followed by the name of the evaporating solute in brackets. (2) The calculator estimates only the initial evaporation rate. For highly-concentrated solutions, the initial rate can often be substantially higher than the rate averaged over time periods of a few minutes or more. (3) The calculator can estimate evaporation rate only within particular temperature and concentration ranges that are different for each chemical. (4) To predict evaporation rate, the calculator assumes that the solution is free of impurities, is not reacting with any other substances, and is not polymerizing.

► [Instructions](#) - for using the calculator and for using a rate estimate in ALOHA.

Chemical: Nitric Acid [Nitric Acid]

About This Chemical:

Nitric acid evaporates slowly under ordinary ambient conditions, and is unlikely to evaporate fast enough to pose a significant hazard far from the source. Near the spill, nitric acid evaporates to generate dangerous fumes in moist air. TEMP./PRESS. LIMITS: The calculator estimates evaporation rates of nitric acid from aqueous solutions containing roughly 20 to 100 percent nitric acid, at temperatures from roughly 0 to 120 deg. C. CAVEATS: When nitric acid is diluted in water, the reaction generates heat, which can caus

Wind Speed: 1	knots
Concentration (Weight Percent): 50	%
Ambient Temperature: 68	F
Alongwind Puddle Length: 20	feet
Crosswind Puddle Width: 8	feet

☐ Adjust for high volatility ([Huh?](#))

Calculate

Initial Evaporation Rate: .00386	pounds/min
Initial Partial Pressure: 36.0	Pascal

Downloading the Calculator

You can download the calculator to use on your computer by clicking the link below. You'll also need a web browser that supports Javascript [Lycos website], but you won't need an Internet connection. The calculator is a set of HTML and Javascript files that runs on Windows, Macintosh, and other kinds of computers. It's in zipped (compressed) format, so you'll need to unzip (uncompress) it into a folder on your hard drive (most current browsers will automatically unzip it, otherwise, you can use Stuffit Expander). To run the calculator, from your web browser's File menu, choose either Open File or Open Page, then open the evap.html file.

- [Download evapcalc.zip \(22K\)](#)

Revised: